CLAIMS:

1. A switched mode power supply (10, 20) comprising:

a switched mode power supply transformer arranged with a primary winding (11, 21) and a secondary winding (12, 22);

a first transistor (13, 23) arranged on the primary side of the power supply to control the conduction of current through the primary winding of the switched mode power supply transformer;

a primary control circuit (14, 24) arranged to control the conduction of current through said first transistor; and

a second transistor (15, 25) connected to the secondary winding, which second transistor is arranged to charge an output capacitor (16, 26) and thereby create a power supply main output voltage (Vout) across said capacitor; which switched mode power supply is characterized in that it comprises:

a secondary control circuit (17, 27) arranged to measure the main output voltage of the supply to control the conduction of current through said second transistor, thereby controlling the main output voltage;

an auxiliary voltage output (Vaux) to which excess transformer energy will be transferred when the main output voltage of the supply has been controlled to a predetermined level; and

a sensing means (18, 28) on the switched mode power supply transformer, the voltage across which sensing means being directly related to the excess transformer energy, and consequently the auxiliary output voltage, wherein the voltage across the sensing means is employed to control, by means of the primary control circuit, the conduction of current through said first transistor and thus the voltage at the auxiliary output, thereby controlling the excess transformer energy.

2. The switched mode power supply (10) according to claim 1, wherein said auxiliary output (Vaux) is arranged such that the auxiliary output voltage is delivered from the secondary winding (12) of said transformer.

3. The switched mode power supply (10) according to claim 2, wherein the auxiliary output (Vaux) voltage is arranged to feed secondary-side electronics (15, 17).

4. The switched mode power supply (20) according to claim 1, wherein said auxiliary output (Vaux) is arranged such that the auxiliary output voltage is delivered from the sensing means (28) of said transformer.

5. The switched mode power supply (20) according to claim 4, wherein the auxiliary output (Vaux) voltage is arranged to feed primary-side electronics (23, 24).

6. The switched mode power supply (10, 20) according to any one of the preceding claims, further comprising:

a diode (19, 29) connected in series to the auxiliary voltage output (Vaux), which diode is arranged such that, when the second transistor (17, 27) is turned off, said diode will start to conduct, which results in the fact that energy is delivered to the auxiliary voltage output.

7. The switched mode power supply (10, 20) according to any one of the preceding claims, wherein said sensing means (18, 28) comprises a sensing winding.